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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,721	07/06/2004	Hiroaki Sudo	L9289.04146	6718

24257 7590 08/19/2009

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EXAMINER	
BRANDT, CHRISTOPHER M	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
08/19/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,721	SUDO, HIROAKI	
	Examiner	Art Unit	
	CHRISTOPHER M. BRANDT	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/9/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on February 18, 2009, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/George Eng/

Supervisory Patent Examiner, Art Unit 2617

Information Disclosure Statement

The information disclosure statement submitted on July 9, 2009 has been considered by the examiner and placed of record in the application file.

Response to Arguments

Applicant's arguments with respect to claim 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 14 recites "…increasing ***a ratio*** of the set degree of multiplexing…", however, after rereading applicant's specification, there is no disclosure of such a ratio. The examiner notes that on page 11 line 26 – page 12 line 4, applicant mentions that "it is essential only that the degree of code multiplexing of a transmit signal be increased as the number of retransmission increases".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 14 is rejected under 35 USC 103(a) as being unpatentable over **Yamada et al. (US PGPUB 2001/0014091 A1, hereinafter Yamada)** in view of **Das et al. (US Patent 7,564,827 B2, hereinafter Das)**.

Consider **claim 14**. Yamada discloses a code division multiple access transmitting apparatus (paragraphs 92, 93) comprising:

a plurality of spreading sections that perform spreading processing separately for a retransmission signal using different spreading codes (figure 2, paragraph 94, read as legends 7-1, 7-2, 7-3, . . . , 7-M denote spectrum spreading modulators for generating diffusion codes mutually orthogonal with the M-string parallel signals);

a control section that detects a number of retransmissions for the retransmission signal and determines an uplink interference value obtained by the plurality of spreading sections based on the detected number of retransmissions (figure 2, paragraphs 94, 96, read as legend 16 denotes a control section for extracting from the memory the data which has been requested to be retransmitted based on a retransmission request signal obtained from the data detector, which the retransmission request signal also includes a measured uplink interference value to the mobile station);

a multiplexing section that multiplexes the retransmission signals spread by the plurality of spreading sections based on an uplink interference value (figure 2, paragraph 96, read as the multiplex number at the mobile station 1 can take values from 1 to M. For example, when the multiplex number is M, the parallel signals are transmitted to only the spectrum spreading modulator corresponding to this number N (where N is an integer equal to or above 1 and less than M)); and

a transmitting section that transmits the multiplexed retransmission signal (figure 2, paragraph 94, read as legend 10 denotes a transmitter for superimposing a carrier transmitted from the carrier generator on an output of the adder, and for outputting a superimposed result from an antenna); and

Yamada discloses the claimed invention but fails to explicitly teach a degree of multiplexing and a control section that detects a number of retransmissions for the retransmission signal and increases a ratio of the set degree of multiplexing to a degree of multiplexing for the signals other than the retransmission signal spread by the plurality of spreading sections as the detected number of retransmissions increases.

However, Das teaches a degree of multiplexing and a control section that detects a number of retransmissions for the retransmission signal and increases a ratio of the set degree of multiplexing to a degree of multiplexing for the signals other than the retransmission signal spread by the plurality of spreading sections as the detected number of retransmissions increases (column 4 lines 10-25, read as when the quality of the communication channel is poor, which results in retransmission, redundancy in the retransmission is needed. In other words, more or less code multiplexing is performed depending on the number of retransmission. For instance, a

user used three codes on retransmission but used 6 codes for the original transmission, which would be an increase in the multiplexing ratio. It is also noted that the number of code multiplexing is read as a degree of multiplexing).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Das into the invention of Yamada in order to provide the desired redundancy for successful decoding.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Brandt whose telephone number is (571) 270-1098. The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Christopher M. Brandt

C.M.B./cmb

August 14, 2009

/George Eng/

Supervisory Patent Examiner, Art Unit 2617